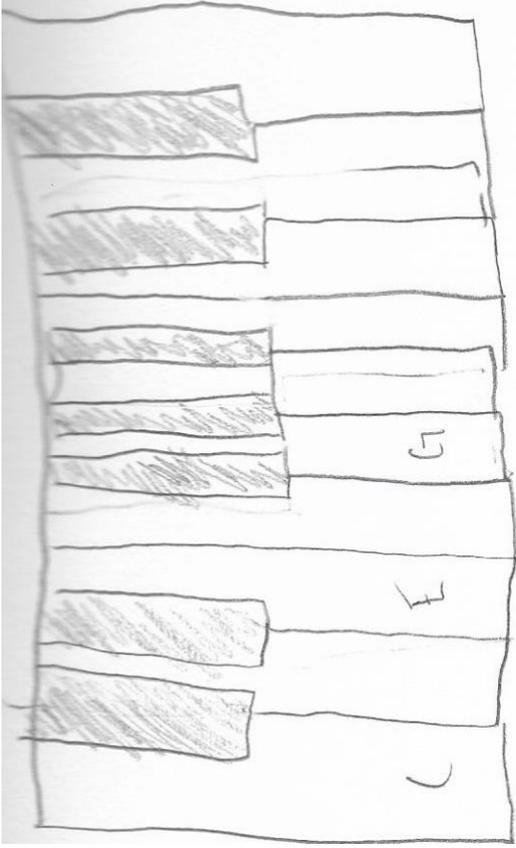
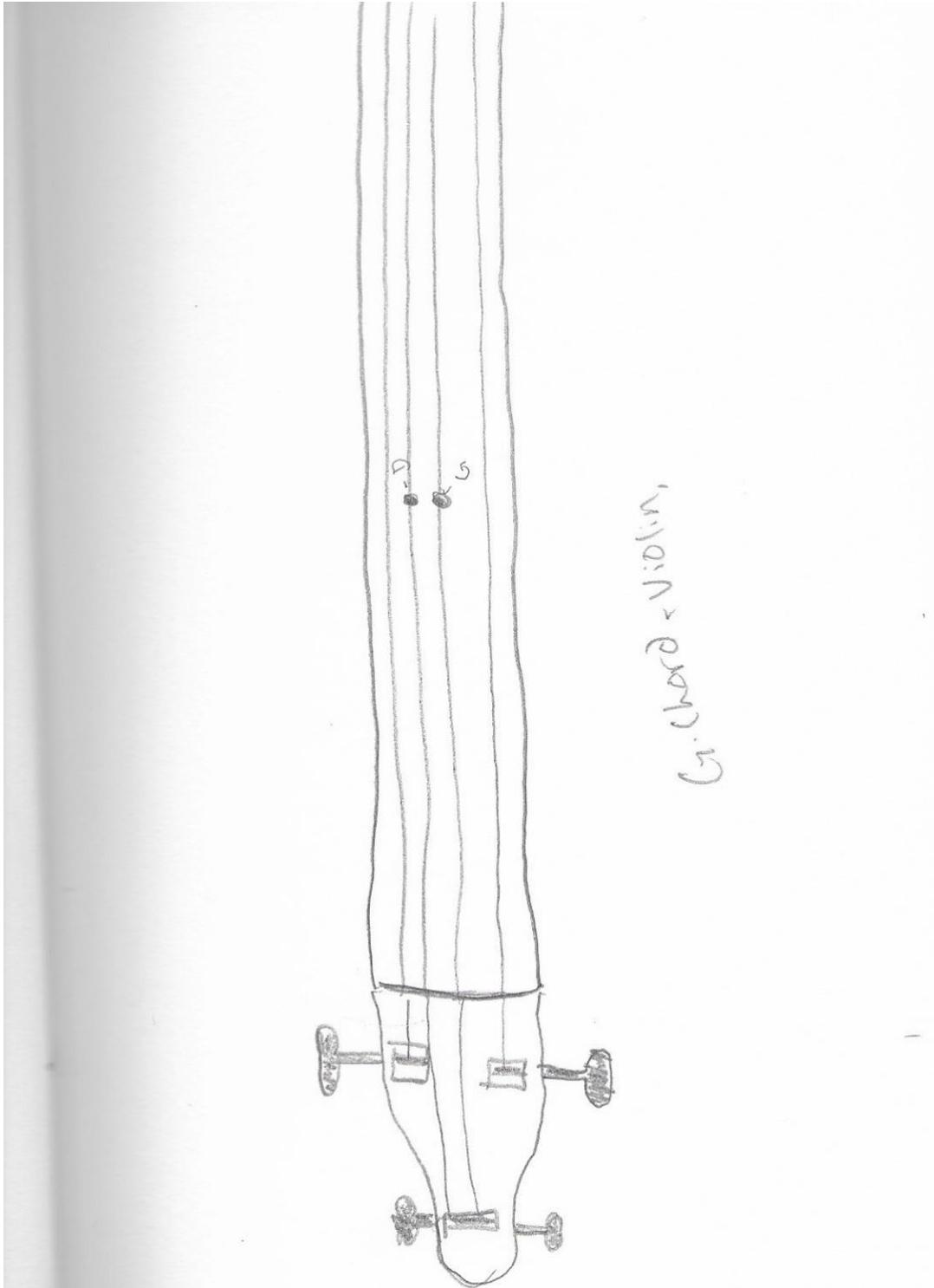


The art of the piano is that compared to other instruments, the note layout is linear with separate keys for each note. A chord on a piano is very linear and depending on the key, can sound major or minor. Comparing this to the layout of a violin for example, where each string has a linear succession of notes and chords have to be played across multiple strings in some sort of arpeggio, the difference between their sound quality only depends on the person playing the instrument, how they feel, and their talent when playing these instruments.



G - chord triad

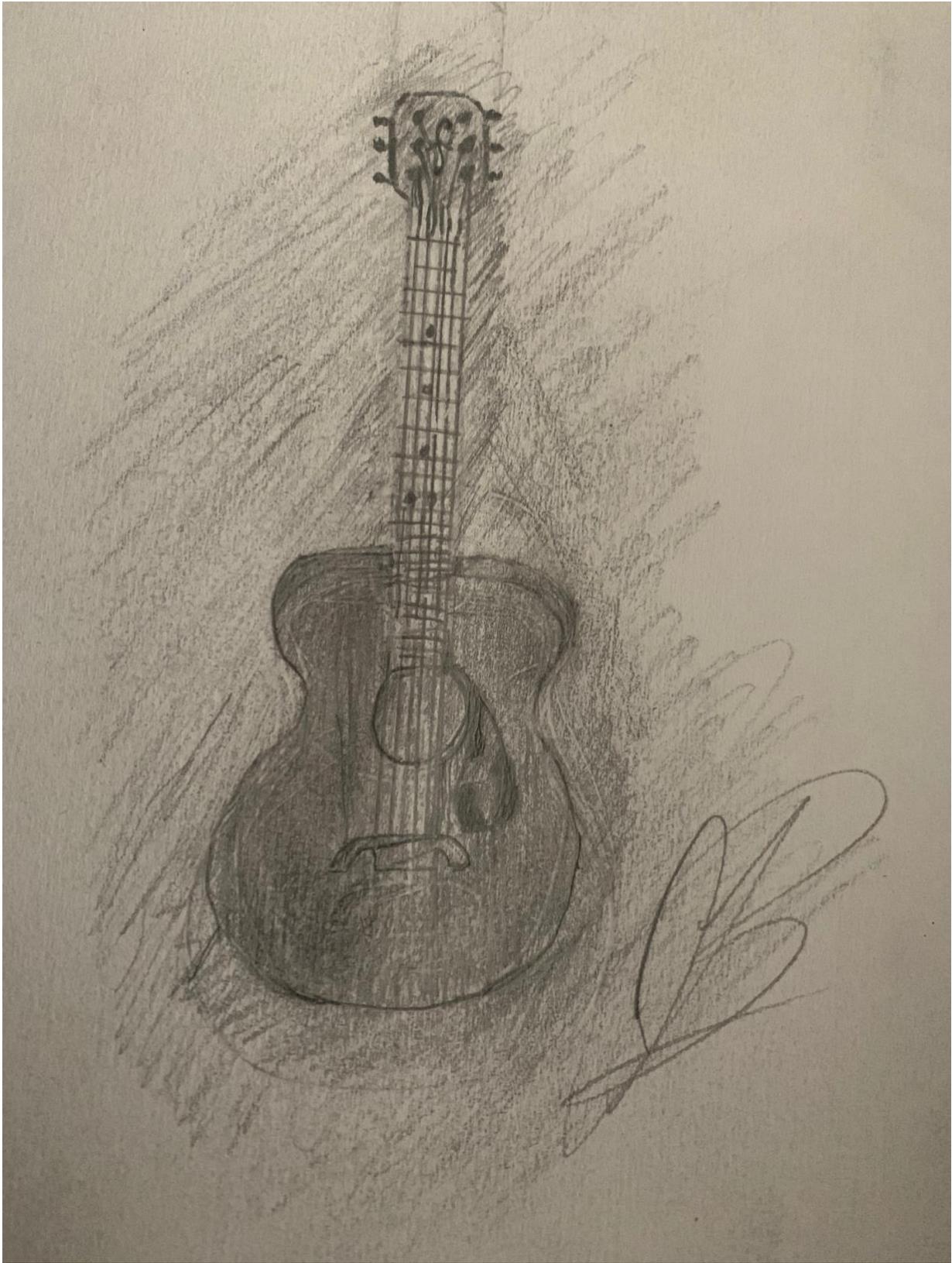


Davinci always considered music as an art form to be less pure to paint simply because its breadth is ill conceived and therefore doesn't span the test of time. I tend to disagree as a musician myself, I think music is more favorable than art because of this mortality. It doesn't last forever, and music is constantly changing with the people who are creating it during the

time they are creating it. I find this to be rather sacred because it doesn't span generations or decades but lives in the present.

On the topic of how music is conceived it is often spontaneous and because of this is pure. And it is beautiful despite imperfection, and I would argue that this imperfection can even make music as an art form more human and unique because unlike paintings, spontaneous music contains these many imperfections and that is what makes them human.

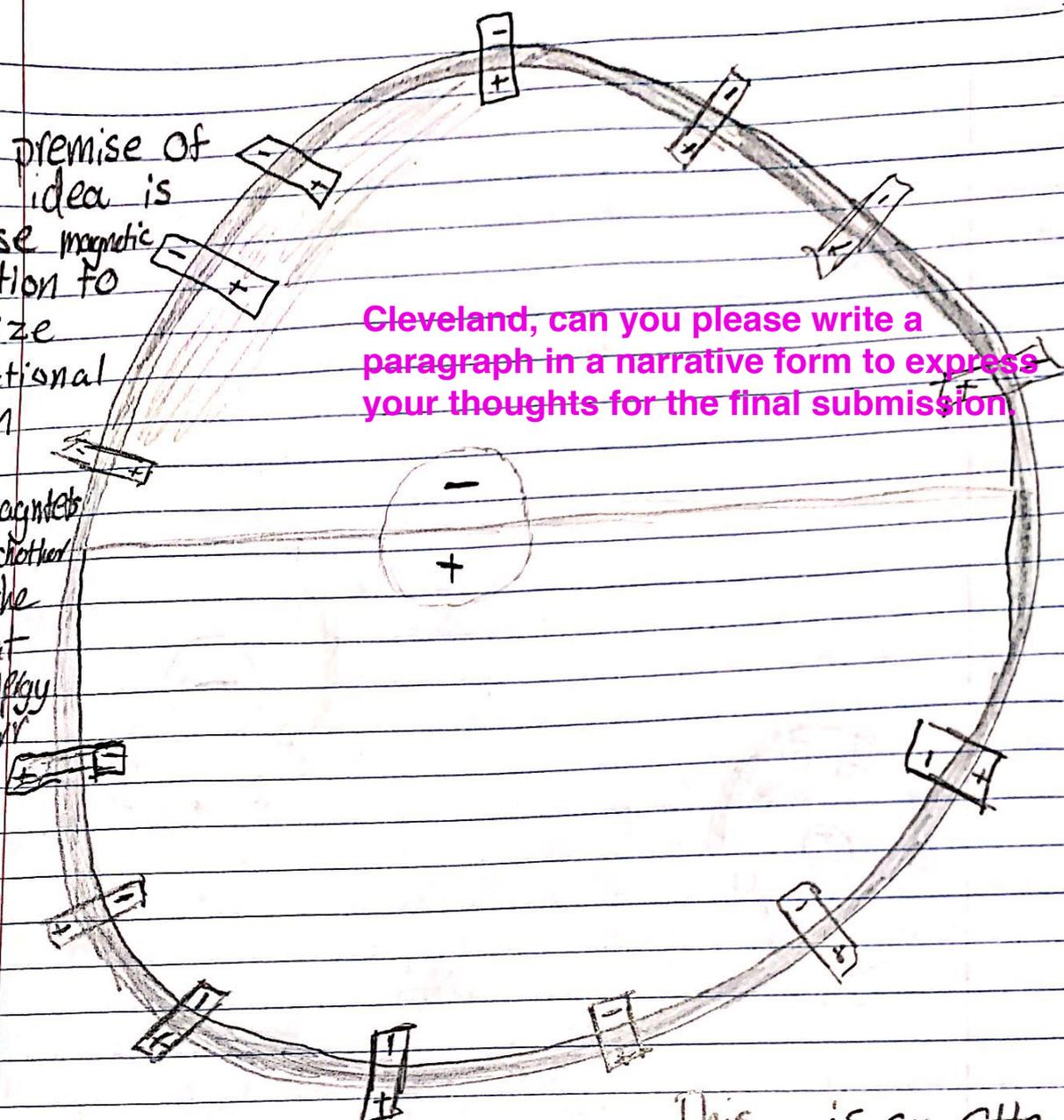
Sound resonance especially is intriguing to me. Why do larger pianos sound better than smaller pianos. Why do larger guitars have a better range and tonal clarity than more compact guitars. We begin to see a theme that instruments with larger space for sound waves to accumulate tend to sound more pure. This makes me think that because a larger instrument has a larger space for all sound waves to reflect, notes on the lower end do not become as distorted. And I think this is simply because there is more space for each frequency of sound to resonate within the instrument and it gives a better tonal clarity.



I picked da Vinci's invention of the Armoured Car because it interests me, and it's a cool idea for the time. It is the precursor to the modern day tank. Supposedly it was able to move in any direction. The weapons were mounted on a platform within the car which could rotate to aim in any direction. The platform had a big shell of armor reinforced with metal plates. You could see out the top to move and fire. It was powered by eight men on the inside turning pedals - this line is very good. In modern terms this would be like a Sherman from the second world war. Both had a firing mechanism or cannon/gun, both could move, one by horsepower/engine power and Leonardo's by man power. Both had metal armor plating. Both could/ did get used in battle. And both held men inside. Da Vinci made most of his inventions based on nature, the conical shape of the tank could have been inspired by a turtle shell which in some ways has the same purpose as a tank or armoured car. They both protect some living being on the inside. The real inspiration to this "tank" could have been the Duke of Milan, Ludovico il Moro. It is speculated that he commissioned Leonardo to design the machine.

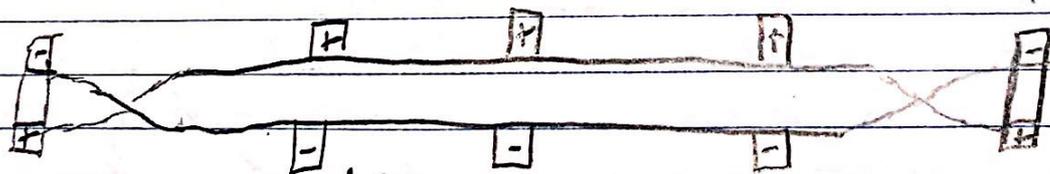


The premise of this idea is to use magnetic attraction to minimize gravitational friction while the magnets push each other along the rail that takes energy from their friction.



Cleveland, can you please write a paragraph in a narrative form to express your thoughts for the final submission.

This is an attempt to create energy using a copy of gravity & satellites



At the middle of the ring it turns the cylindrical magnets so they are still attracted to the center.

da Vinci in architecture engineering

I chose this topic because it is related to my major, and I am also very interested in the architecture during the renaissance period.

I want to start this essay by talking about Da Vinci's drawing/sketching features. He masters in lines, shapes and forms. By illuminating shadows, he successfully demonstrated foreground and background, more importantly, the design of the buildings. Da Vinci was a great painter, inventor, mathematician, philosopher and engineer. Combining all these master skills, they make Da Vinci a great architect.

During my research, I found that some sketches dated around 1482 indicate an early interest shown by Da Vinci in centralised structures. An example of this would be his project for a central-plan palace for Charles d'Amboise (I will put the sketch in attachments). I can also see that Da Vinci didn't just follow the normal design path for architects and engineers in the renaissance period, he had his special thinkings. For example, antique buildings such as the pantheon provided models of circular and central structures, which inspired other architects and engineers like Sangallo and Francesco di Giorgio (who lived at the same time period as Leonardo). But those designs were almost completely neglected by Leonardo, despite the key point that Neoplatonic philosophers designated such centralised schemes.

Da Vinci collects inspiration from nature, a good example of this would be the Spiral Stair Case, that's inspired by a snail's shell. Da Vinci is also influenced by people like francesco di giorgio and guiliano da sangallo. In his design for the chateau of chambord, we can see the harmonious and untraced unicum in the history of modern architecture.

I chose this topic because I am also very interested in the architecture of the renaissance period.

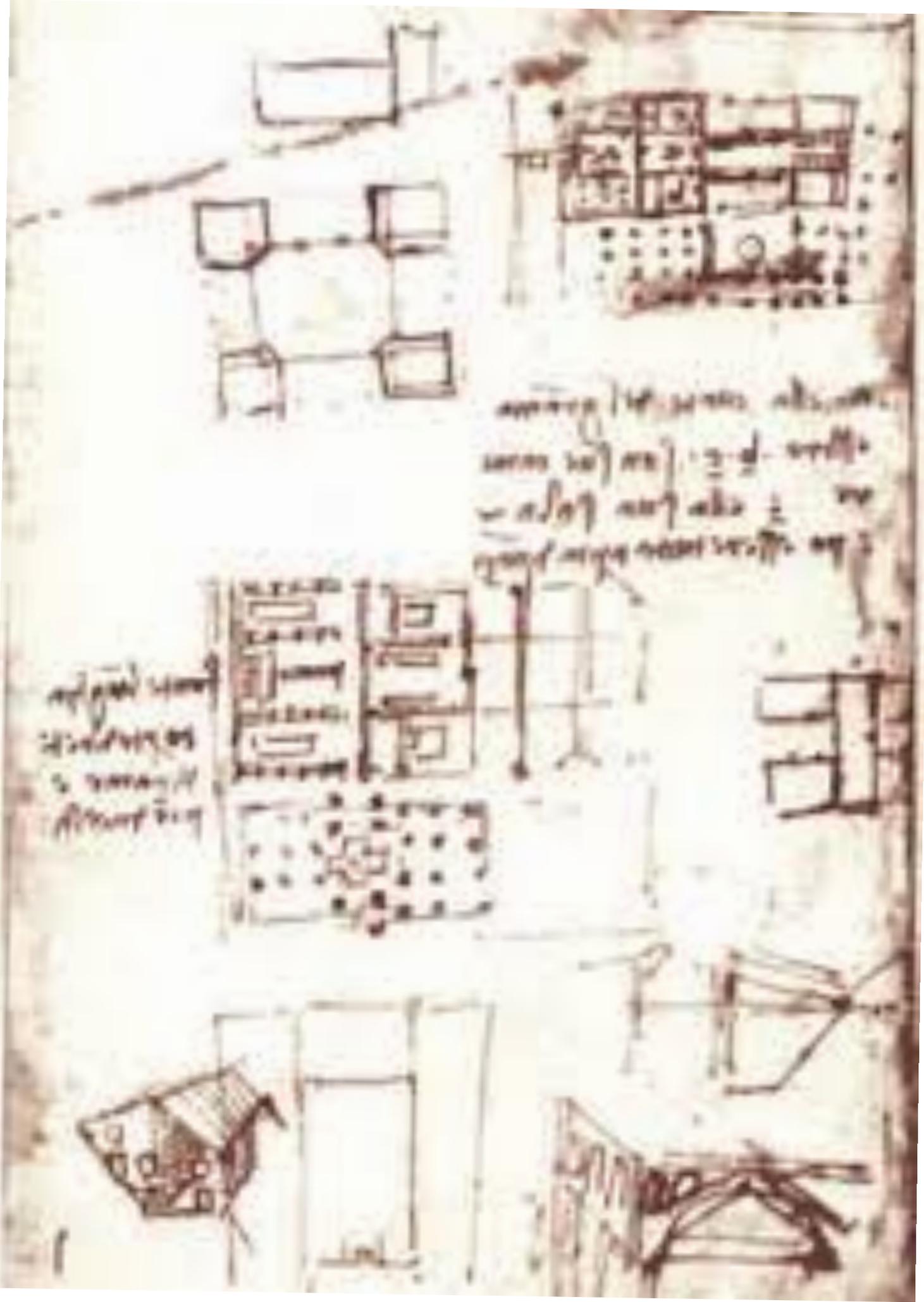
da Vinci's drawings and sketches features show his ability to illustrate forms with lines, shapes, illumination and shadows. He uses these techniques to illustrate the foreground and background in the design of the buildings. da Vinci combined his skills as a painter, inventor, mathematician, philosopher and engineer into architecture, which imparts uniqueness to his work.

Please see if you can use the above comments to revise further. Write directly with as few words as you can without losing your message.

Can you also make on line sketch which highlights the main attributes of the figures which you have attached. Perhaps emphasizing the scale and proportions.

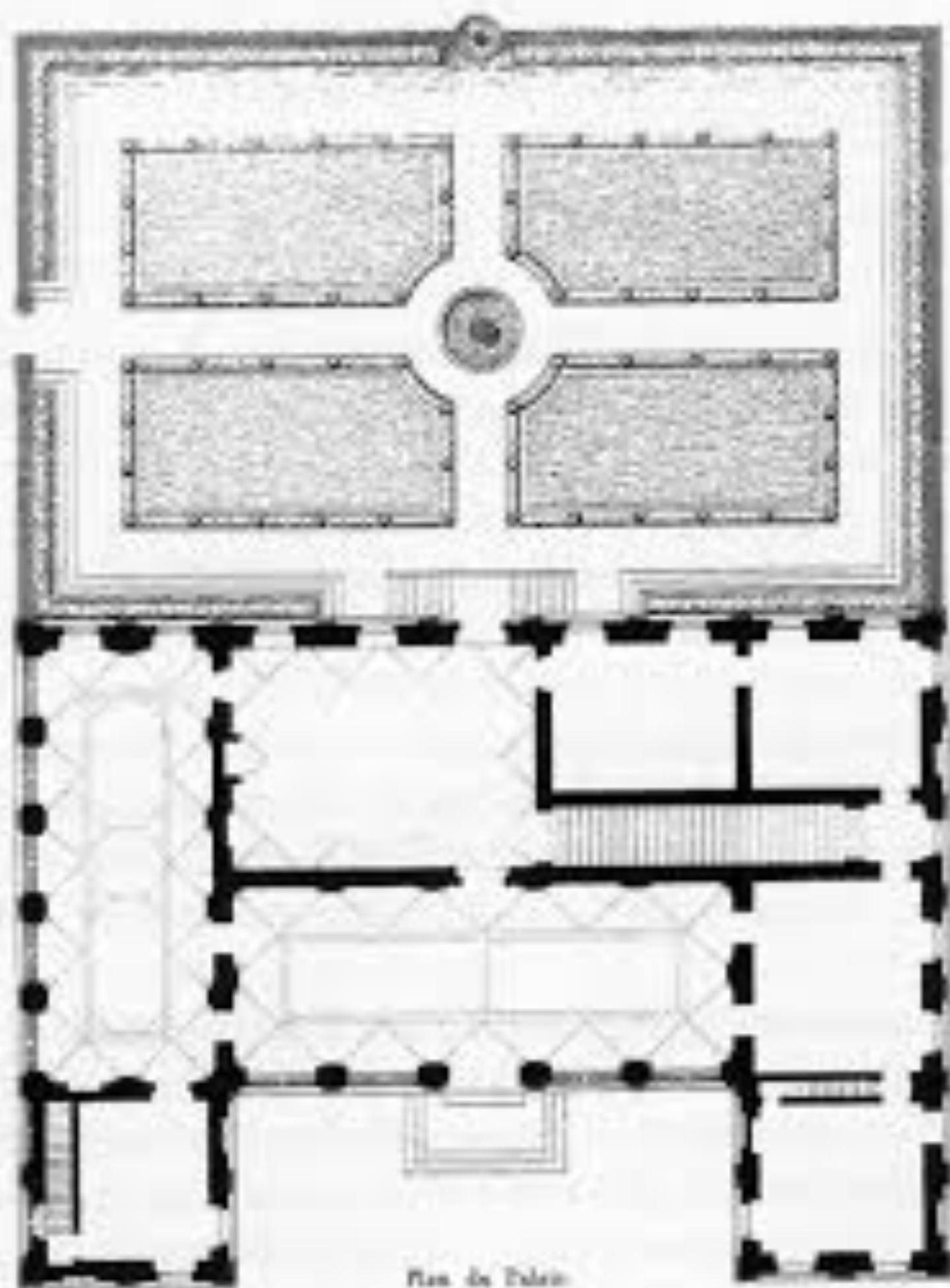
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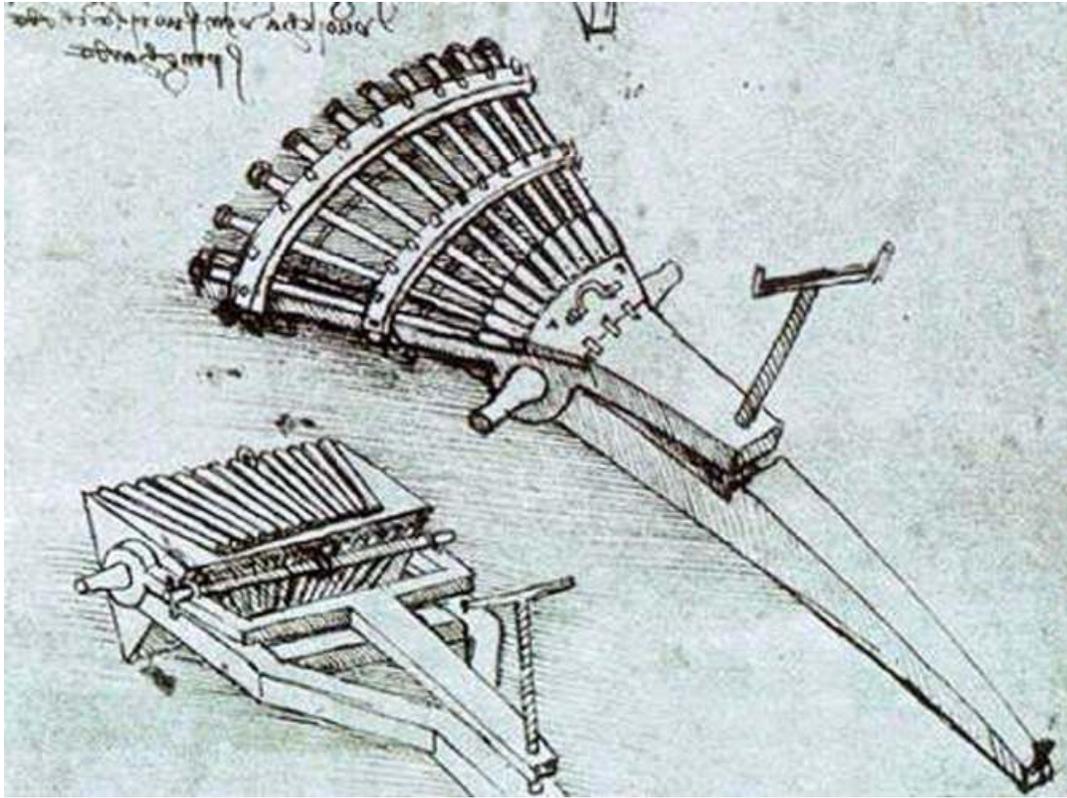


Handwritten text in a script, likely Indic, located in the upper right quadrant of the page. The text is arranged in several lines and appears to be a descriptive note or legend for the architectural plan.

Handwritten text in a script, likely Indic, located on the left side of the page. This text is positioned to the left of a large rectangular room and appears to be a label or description for that specific area.



Plan de Tolon



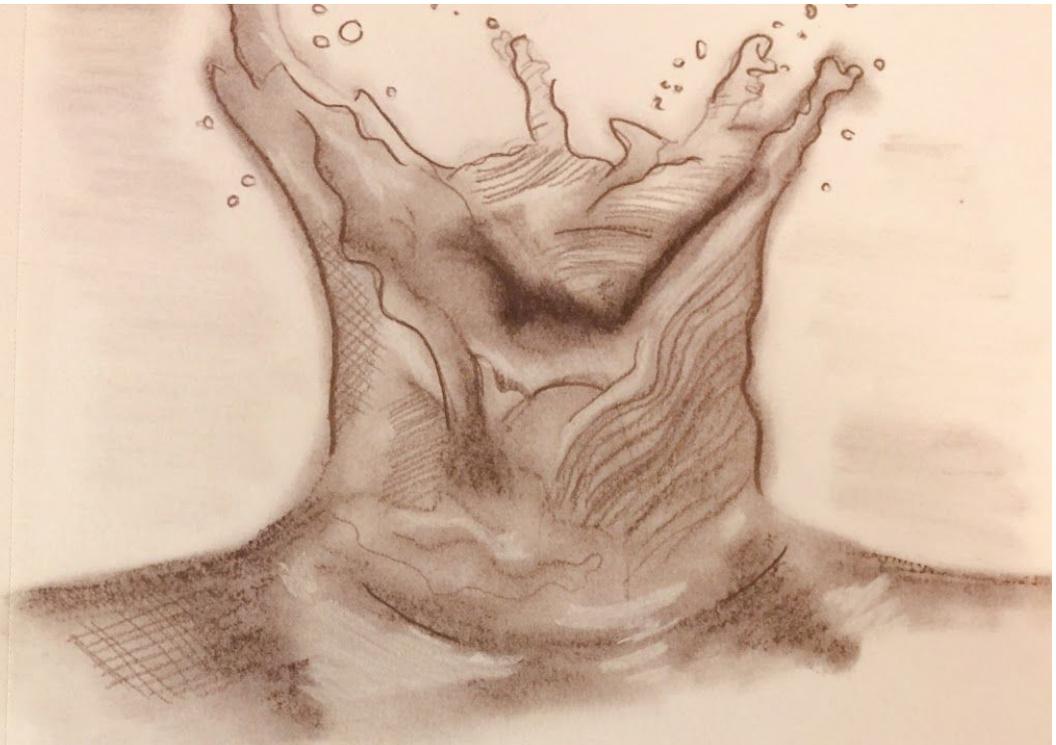
Leonardo da Vinci designed this 12-barreled gun carriage to increase the rate of fire of the traditional cannon. Though the “machine gun” was not anything like the rapid-fire machine guns of today, his design supported an innovative aiming and loading mechanism. The fan shape of the carriage allowed for a wider field range to amass casualties on the enemies and the gun’s lightweight and large wheels allow for greater mobility on the battlefield. The gun would fire off two rounds followed by two more rounds in rapid succession which would allow the first two cannons to cool off before the next round of shots. I picked this topic because of my interest in old warfare and battlefield tactics. This ingenious method of the increasing rate of fire for cannons would have been potentially the greatest technological advantage on the battlefield had it been mass-produced. This machine gun design has been improved over the years resulting in the devastating creation of the modern machine gun. His theory was that prior to battle all 11

weapons could be loaded resulting in the creation of a machine gun. Da Vinci believed that the main problem with the cannons of his time was how long it took to load and fire them. Modern machine guns and larger artillery weapons get around this issue by firing multiple bullets or shells one after the other at high speed. Da Vinci solved the problem by placing 11 small caliber guns in a row, one beside the other.

As I was reading dozens of quotes from Leonardo Da Vinci, I came to the realization that every single one of his quotes are very relevant and relate to everyday life. The quote that stuck out to me the most was, "As a well spent day brings happy sleep, so a life well spent brings happy death." . This quote portrays how da Vinci chose to live his life. He worked in ways that made him happy, and successful. He realized that he drew pleasure from drawing, designing machines and devices, and watching over medical procedures. He continued to work until the day he died. He realized the futility of working without passion.

I chose this quote is because it directly relates to me and everyone around me. I must do what I love in order to have a happy death. It gives me motivation to live my life to the fullest in order to be able to look back on my life one day and be happy that I lived it as I did. This quote isn't meant to be seen as sad or depressing, but as happy and uplifting, because it illustrates how one must live a happy life. This quote is timeless: it relates to everyone today as it did in Da Vinci's era, and it will continue to hold for the future generations. We shall remain passionate in what we do, and in the way that we influence the world around us. It is the path to happiness. da Vinci remains a living example of his passion in his work. His name will not be forgotten. Millions are following the path that da Vinci has paved for them.





~ motion of water ~

The motion of water when it hits an object, the water spreads out as the rock comes in contact with the surface of the water and concaves. The objects weight results from gravity, which can pull it down slope. The materials resistance to sliding or flowing depends on air pressure, humidity, adhesion, and cohesion. The factors that affect the flow rate are pressure, density, and viscosity. The splashes happen when a liquid droplet impacts on a liquid and a solid surface.



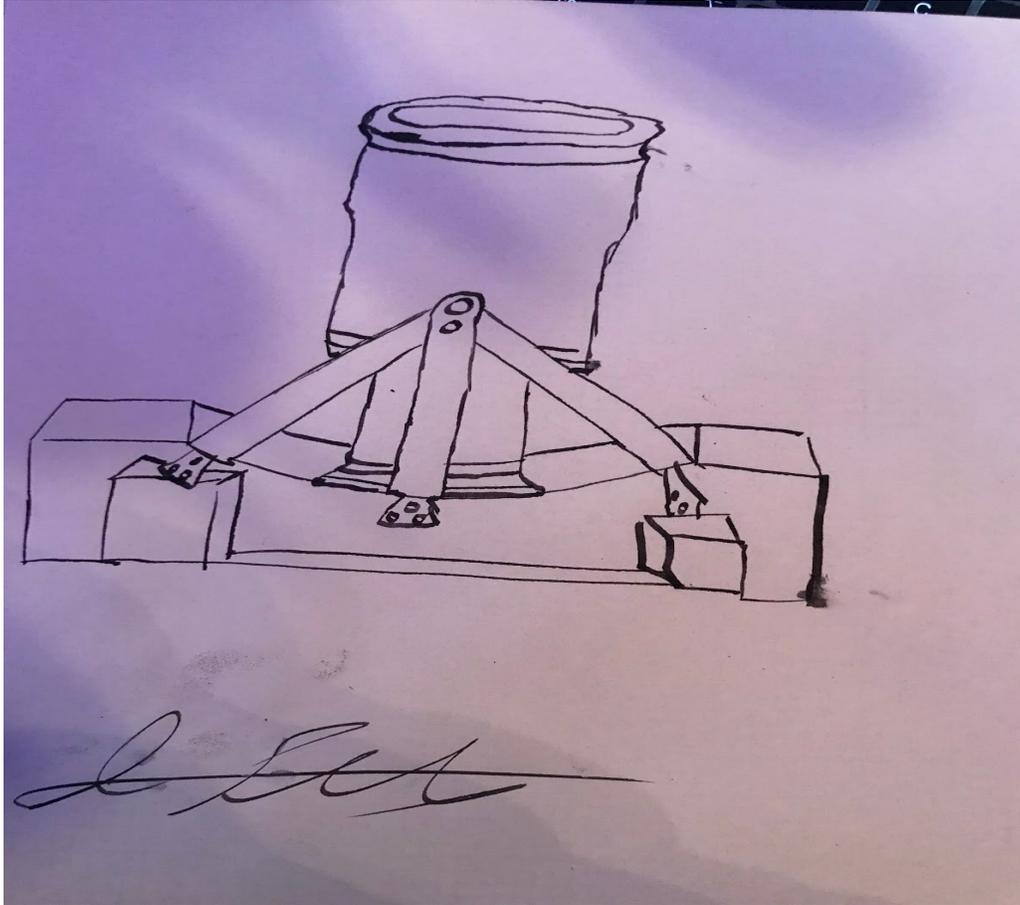
This is a picture that I sketched out from just a simple outline of a heart. Like Da Vinci's sketches and artwork there is always a base or an outline before he turns his ideas into masterpieces. For my sketch the base was a heart then the leaves that wrapped around the heart were added for more detail. If this were to be compared to a painting of Da Vinci's the leaves would become the faces or bodies in his artwork. The flowers were added to add dimension to the simple heart and leaves just like the different colors added dimension in Da Vinci's works as well as his use of shading in his sketches. Symmetry played a role in this drawing, even though it is not perfect, there were flowers placed on opposite sides of the heart to make sure that it did not look lopsided. Da Vinci also made it a point to use symmetry throughout his art pieces, whether it be the face of Mona Lisa or the architecture of a building symmetry was used in order to make sure his pieces looked realistic and professional.

Date: 09/22/19

“When once you have tasted flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return.”
-Leonardo Da Vinci

I have decided to choose this quote for my journal entry today because I feel like I not only have a deep personal connection to it, but because it is true and is shown in society in general. For me I've always loved the idea of flight and being able to soar through the sky as I have been jealous of birds and planes as they drifted through the clouds above me. When I first was able to be on a plane and remember the sensation, I knew that I could never get tired of that weightless feeling one experiences during take off. And that feeling of looking out the window and seeing the world below you, watching as all the things that appeared so huge once, now appeared so little and miniscule. I feel as though life is in the sky as well, not only just birds and planes, but when looking at the stars on a clear summer night, fills me with hope and opportunity that there is more life out there waiting to be discovered. The sky is never empty when scattered with these beautiful sparkling lights we call stars, that are actually very huge, but appear so small.

Society shows signs on this quote as well as if it was seen in a perspective where one finally discovers victory or that feeling of being unstoppable and wanting more of it. For example taking consideration of a business, when a business starts up and takes flight, they don't want to stop their income. Same could be said for all the conquerors in the past. They experienced what it was like to win and to defeat and feel that rush of being unbeatable, and as it is proven, they don't stop and keep conquering. **It is nice how you first talk about flight specifically but then expand it to greatly generality.**

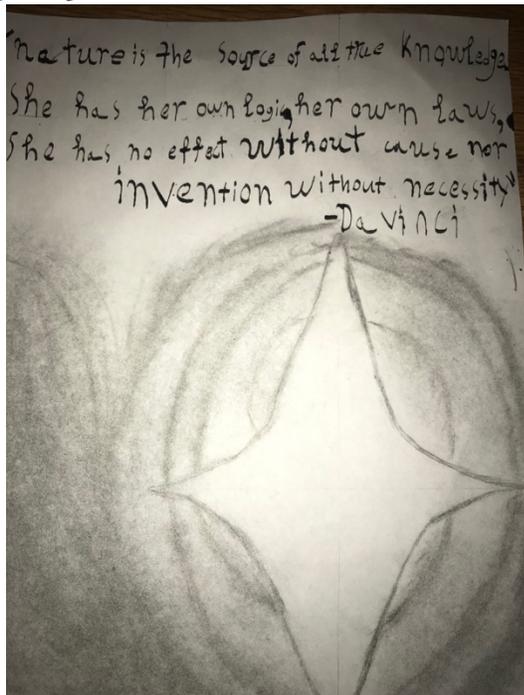


Da Vinci's Telescope

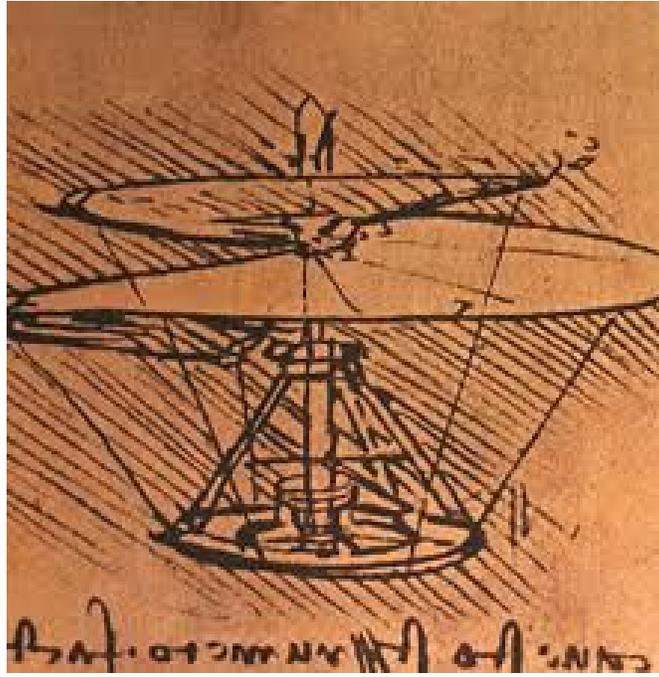
Da Vinci was very well known for his work in art and architecture but something he isn't very well known for is his contribution to astronomy. Although several of his projects never left his notebook, his notes sparked conversations which led to better and smarter inventions.

Da Vinci was an inventor and painter on the outside but an astronomer at heart. He was fascinated by the moon. Da Vinci believed that the moon was much like the earth and that it was in fact covered in water. We now know this to not be true but, this drove his idea of building a telescope. He was obsessed with the idea of having another smaller version of earth that we could see. Although he never built one, Da Vinci loved the idea of a telescope. In his notebook he described it as being able to "magnify the moon". He thought that if he could "magnify the moon" he would be able to prove that there was water there. He wrote down very specific details on how one could build a telescope for example, how thick each piece of glass had to be able to magnify enough. Although his invention was never made, he loved the idea of being able to see the moon up close. Da Vinci sparked conversation of telescopes and in 1608 Galileo Galilei made the first telescope and pathed the way to telescopes in today's world like the hubble.

All that is in our universe comes from the chaos of unending random interactions made possible through movement. It is by these random happenings that new and beautiful things arise in our universe and in our souls. Local forces then shape ideas and matter out of infancy guiding them to their Fate and Purpose. A star is born unstable from a conglomerate of matter and the constant gravity, crying out to the universe for stability and form. Just as any good theorem is born of many ideas that need to be shaped by the force of relentless testing. The forces that surround the star and thought act on them beyond the view of the eye, they give it the ability to be powerful and beautiful and True. They give it potential and purpose.



Da Vinci's Helicopter



I am strongly drawn to Da Vinci's intricate design of the first helicopter. Da Vinci didn't actually call it a helicopter, but rather an "Aerial Screw". If it had actually been built when he lived, it would have revolutionized travel then, as it has in the modern world. I'm sure that no commoner during the fifteenth century would have been capable of even imagining such an incredible invention. Sadly, scientists today have proven that Da Vinci's design would not be capable of flight since the weight load on the lower platform would have been too great, as well as the weight of the machine itself. It's amazing to me that he had this idea in the late 1400's, but the first helicopter was not built until nearly five hundred years later, in the 1940's. Leonardo noticed that the leaves of maple trees rotated to the ground when they fell, and he wondered if he could instead invent something to rotate and rise, instead of falling. Da Vinci's unusual imagination, design, perceptions, and drawing acumen is clear as day in the visual representation of a flying machine. It is astounding that so long ago Da Vinci had the idea of transportation by air. Da Vinci's helicopter design had a diameter of 15 feet, and would have been constructed with reed, linen, and wire. To lift the helicopter off the ground, four men would turn cranks to rotate the shaft, this would enable the propellers to compress the air and ascend. The work required to lift the helicopter would have been extremely tiring for the men rotating the shaft. This design was extremely complex and was way ahead of its time. Da Vinci would have thrived in the technological abundant society we live in today.

Let me know if this works, if not I'll try again!!

One of the things I find most fascinating about Leonardo Da Vinci was the fact that he was so far ahead of his time on everything that he did. Anatomy, engineering, designing, all of it. I often think about how if there was a Leonardo Da Vinci in every generation, the world would be so much more advanced today. One of the most known things that Leonardo Da Vinci did was the Mona Lisa. It's a very small painting of the wife of Francesco del Giocondo. While it seems like a regular painting, there are so many different layers, showing that Da Vinci was a perfectionist in everything that he did.

"The Mona Lisa is the work of a man who had used those skills [observation] to immerse himself in a lifetime of intellectual passions. " (Leonardo Da Vinci by Walter Isaacson, page 475). This quote regarding the Mona Lisa talks about how Da Vinci had an incredible amount of focus and intellect while working on his pieces. The Mona Lisa is also partly famous because it was stolen in 1911. Vincenzo Peruggia stole the painting from the Louvre, and nobody knew where it went for two years.

Attached below is also the picture of my still



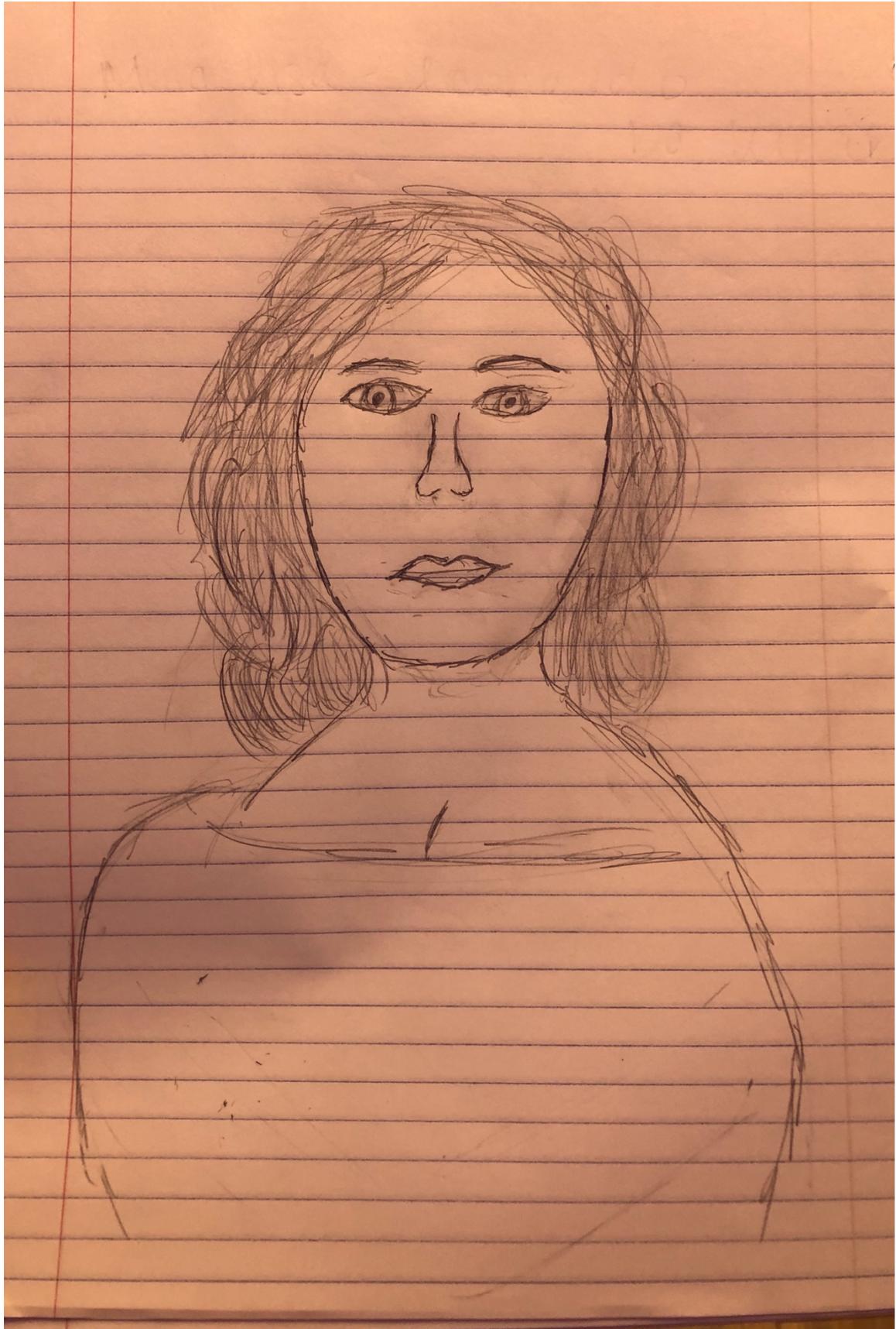
life.

Quote 2: "The noblest pleasure is the joy of understanding"

-Leonardo Da Vinci

This is definitely one of Da Vinci's simpler quotes. The reason it stood out to me was because it represents one of the biggest mottos that Da Vinci lives by. Da Vinci is always wanting to learn more and it is clear that it brings him joy to learn new things and gain a better understanding of the things he already knows. What I find so fascinating about him is the fact that he will work really hard on one of his projects and gain a really good understanding of the subject. He will then leave his project behind for a while and begin something new. He can go years without touching his project just to come back and work on it again. For example, he was known for being a notoriously slow painter and often left a lot of his paintings unfinished. Da Vinci is never finished with a subject because he believes he can always improve or gain a better understanding of the subject. I am so fascinated by the way Da Vinci worked on his project and was always looking to gain a better understanding of the subject.

It would be good if you could plant your ideas into a specific example of his work. You may also use your own imagination to make a sketch of that work.



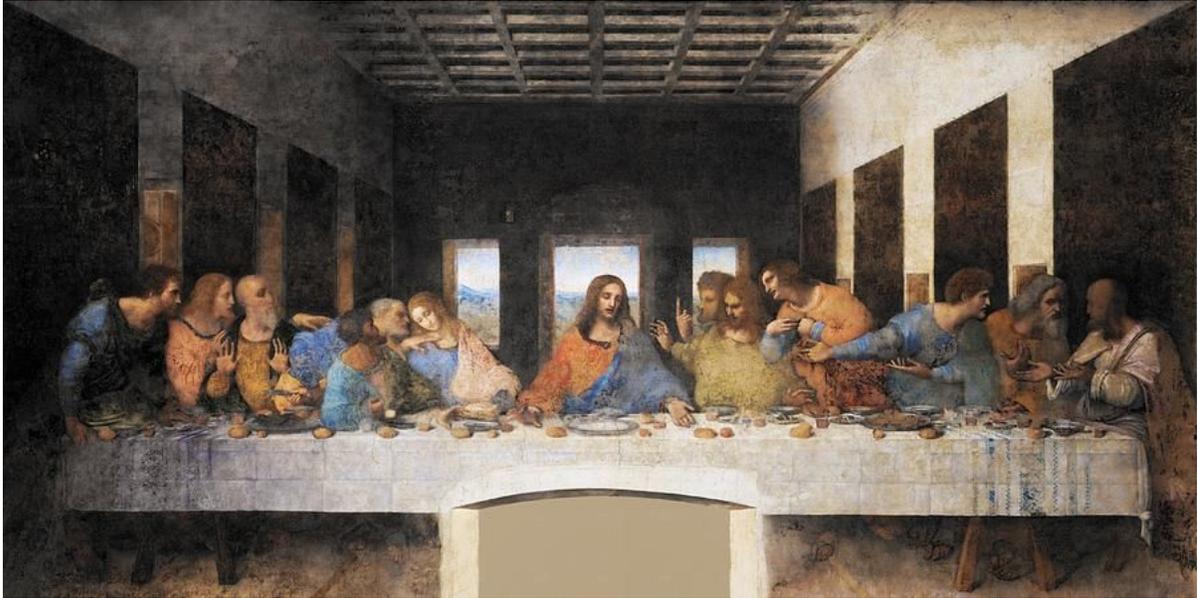
Let me know if this works, if not I'll try again!!

One of the things I find most fascinating about Leonardo Da Vinci was the fact that he was so far ahead of his time on everything that he did (you may be able to delete "on everything that he did without losing what you wish to say - the more concise the better). Anatomy, engineering, designing, all of it. I often think about how if there was a Leonardo Da Vinci in every generation, the world would be so much more advanced today. One of the most known things that Leonardo Da Vinci did was the Mona Lisa. It's a very small painting of the wife of Francesco del Giocondo. While it seems like a regular painting, there are so many different layers, showing that Da Vinci was a perfectionist in everything that he did. "The *Mona Lisa* is the work of a man who had used those skills [observation] to immerse himself in a lifetime of intellectual passions. " (Leonardo Da Vinci by Walter Isaacson, page 475). This quote regarding the Mona Lisa talks about how Da Vinci had an incredible amount of focus and intellect while working on his pieces. The Mona Lisa is also partly famous because it was stolen in 1911. Vincenzo Peruggia stole the painting from the Louvre, and nobody knew where it went for two years.



you write well about da Vinci.
You understand him and revere
him. How may that translate into
you personal life.. can you add
a sentence or two.

The Last Supper



The Last Supper by Leonardo Da Vinci is an extraordinary piece of work that combines religion, experimentation, and creativity. Here, one can see the contrasting colors of the robes worn by Jesus and his 12 disciples compared to the deep somber colors of the room. Perhaps that was Da Vinci's way of depicting life amidst death, as Jesus was crucified the very next day. Taking a closer look at the lighting, one can see how the brightest spots are surrounding Jesus and the center of the painting. Da Vinci also used the vanishing point technique so our eyes are drawn to the middle and perhaps beyond that with the mountains and such in the background.

Judging each painted face that shows such a distinct expression, fitting together so well, one can tell that Da Vinci was extremely particular and careful with each and every brush stroke. Every mark, every face, every color was painted on purpose; he had no time for mistakes. As a man of many talents, it's remarkable how specific and detailed every one of his paintings are.

Chantal, it is now very well written. Can you add a sketch - not the entire painting - but instead just pick one character in the painting and try to draw him.

A short analysis of Da Vinci's sketch of a preliminary machine gun.

The first thing that strikes me with many of da Vinci's sketches is the fact that they all appear so buildable with the resources that he had at the time. This same thing cannot be said for some blueprints and concept art of today's world. It is not uncommon for designers to conceive things that cannot be built for another decade or more, Da Vinci did not do that. Additionally, the way that the men power this machine gun makes it very feasible to work on the battlefield. It does not require fancy pulleys, just people walking on steps on a wheel. I also love how da Vinci incorporated a shield mechanism into the design to protect the soldiers. This was a not often thought about feature in military machines of the time.

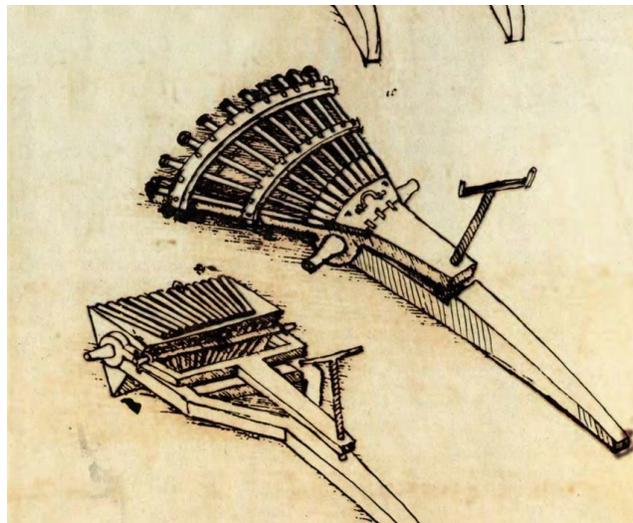
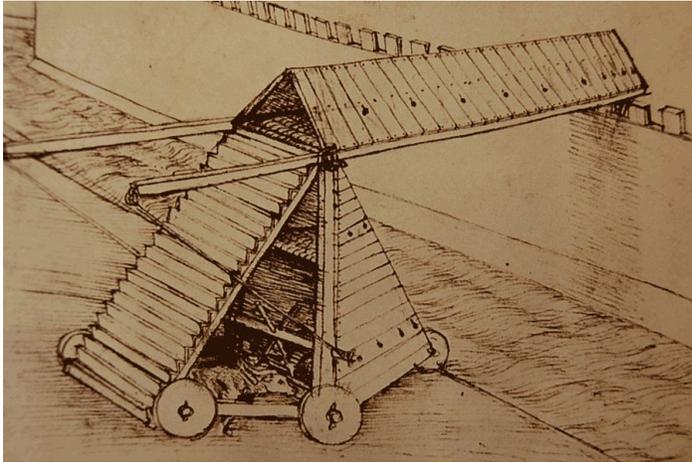
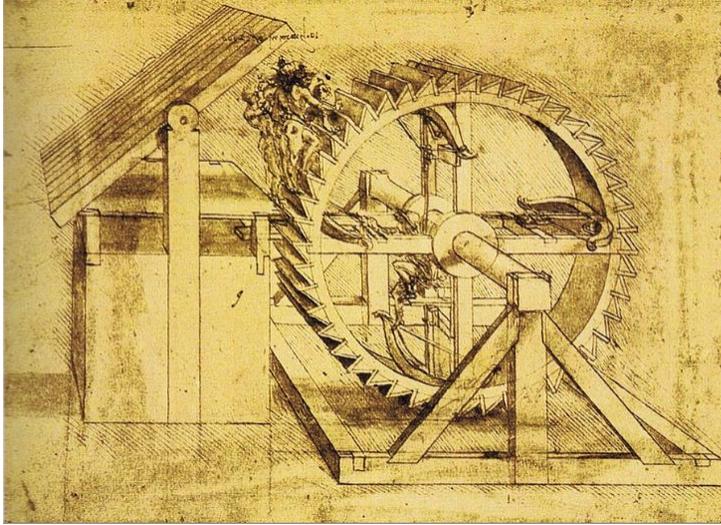
It is also worth noting that he seems to use normal crossbows mounted to the inside of the wheel, and the turning of the wheel simply puts tension in the string in order to release the arrow or bolt. One key feature to wartime machines is that they must be easily buildable, replicable, and repairable. Of course, this machine appears to be all three. Coincidentally enough, this is one of the major shortfalls of the USA's fighter jet fleet: they're so expensive it is hard to build and maintain the fleet. Da Vinci was a genius through and through, and the thoroughness yet simpleness of this war machine design truly speaks to that, and I think modern designers and engineers could take a couple steps back from their far fetched and futuristic designs and learn a thing or two from his ancient sketches and drawings.

I did some more browsing and I found another one of his war machines that was very fascinating. It is a siege engine that is pushed by cattle from the inside. I think it would be interesting if these two devices could somehow be incorporated together to form a cattle driven machine gun with shielding. That would put less human life at risk and be marginally more efficient. Or, possibly having the machine gun apparatus mounted to the top of the siege engine so that it could be mobilized but also shoot within the walls of the besieged city.

A further observation I make about the siege tower is that the wheels seem mounted in an inefficient spot leaving them vulnerable to projectiles and possible crippling of the machine. That could be improved upon in later iterations of planning and construction.

I plan on making a drawing of these two ideas in a later week and scanning that in, however I can't wrap my head around these two contraptions together except in conceptual form.

On the lines of these two contraptions, and the idea of merging them together, an idea that I had was a contraption that has 4 wheels driven by oxen, like a mainframe wagon. The oxen would be protected by shields, and in the middle, there would be one of the wheel machine guns in the middle, and four of the other machine gun he designed (pictured below) on each turret mounted above the wheel of the mainframe. I have really enjoyed looking at Da Vinci's designs for war machine and thinking about how to merge them together and create truly fantastic contraptions. Although there is a very slim chance that they would work in real life, it is inspiring to think about. As a child I played a lot with legos and tried to make wild contraptions, and this takes that a step further in the fact that these are real life and have a basis in history. I truly am an MCDB major with a creative and engineering based mind and Da Vinci's drawings have helped me explore that side of my intellect.



1st Year Seminar

10 September 2019

The parachute is arguably the most widely applied invention conceptualized by Leonardo da Vinci. Although many historians attribute the invention of the parachute to Sebastien Leonardo, who is said to have invented it in 1783; Da Vinci actually thought up the idea of a parachute a few hundred years before. The initial sketch of Leonardo da Vinci's parachute invention came with a description of the design: "If a man have a tent made of linen of which the apertures (openings) have all been stopped up, and it be twelve braccia (about 23 feet) across and twelve in depth, he will be able to throw himself down from any great height without suffering any injury." Possibly the most distinctive aspect of da Vinci's parachute was the triangular canopy. This design led to many historians questioning if the device would have enough air resistance to float successfully, considering the triangular design of the chute and its use of wood as a frame. Leonardo da Vinci's parachute was never actually built in the high renaissance; In fact, modern parachutes don't even use the the triangular canopy. A spherical dome canopy is used in modern parachutes for a smoother flight. Despite the non creation of da Vinci's parachute, his idea precipitated throughout the generations.

Nice, and well written. It would be great if you could attach a drawing make in your own hand.. not essential but give it a try.

